



UNITED STATES DEPARTMENT OF COMMERCE
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EXAMINER LEWIS, A	
ART UNIT 337	PAPER NUMBER 310

DATE MAILED:

05/22/89

This is a communication from the examiner in charge of your application.

COMMISSIONER OF PATENTS AND TRADEMARKS

- ☐ This application has been examined ☒ Responsive to communication filed on 11/31/89 ☒ This action is made final.

A shortened statutory period for response to this action is set to expire 3 month(s), 0 days from the date of this letter.
Failure to respond within the period for response will cause the application to become abandoned. 35 U.S.C. 133

Part I THE FOLLOWING ATTACHMENT(S) ARE PART OF THIS ACTION:

- | | |
|---|---|
| 1. <input checked="" type="checkbox"/> Notice of References Cited by Examiner, PTO-892. | 2. <input type="checkbox"/> Notice re Patent Drawing, PTO-948. |
| 3. <input checked="" type="checkbox"/> Notice of Art Cited by Applicant, PTO-1449 | 4. <input type="checkbox"/> Notice of Informal Patent Application, Form PTO-152 |
| 5. <input type="checkbox"/> Information on How to Effect Drawing Changes, PTO-1474 | 6. <input type="checkbox"/> |

Part II SUMMARY OF ACTION

1. ☒ Claims 1 → 47 are pending in the application.
Of the above, claims _____ are withdrawn from consideration.
2. ☐ Claims _____ have been cancelled.
3. ☐ Claims _____ are allowed.
4. ☒ Claims 1 → 47 are rejected.
5. ☐ Claims _____ are objected to.
6. ☐ Claims _____ are subject to restriction or election requirement.
7. ☐ This application has been filed with informal drawings which are acceptable for examination purposes until such time as allowable subject matter is indicated.
8. ☐ Allowable subject matter having been indicated, formal drawings are required in response to this Office action.
9. ☐ The corrected or substitute drawings have been received on _____. These drawings are ☐ acceptable;
☐ not acceptable (see explanation).
10. ☐ The ☐ proposed drawing correction and/or the ☐ proposed additional or substitute sheet(s) of drawings, filed on _____ has (have) been ☐ approved by the examiner. ☐ disapproved by the examiner (see explanation).
11. ☐ The proposed drawing correction, filed _____, has been ☐ approved. ☐ disapproved (see explanation). However, the Patent and Trademark Office no longer makes drawing changes. It is now applicant's responsibility to ensure that the drawings are corrected. Corrections **MUST** be effected in accordance with the instructions set forth on the attached letter "INFORMATION ON HOW TO EFFECT DRAWING CHANGES", PTO-1474.
12. ☐ Acknowledgment is made of the claim for priority under 35 U.S.C. 119. The certified copy has ☐ been received ☐ not been received
☐ been filed in parent application, serial no. _____; filed on _____.
13. ☐ Since this application appears to be in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under Ex parte Quayle, 1935 C.D. 11; 453 O.G. 213.
14. ☐ Other

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The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless-

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

Claims 1-4, 6, 11-14, 20, 21, 24-27, 34, 39-41 and 43 are rejected under 35 U.S.C. 102(e) as being anticipated by Fehder.

As to claim 1, Fehder discloses an apparatus for enabling visual observation of the proper placement of an endotracheal tube in the trachea of a patient (Figure 1 and Figure 2).

Tubes (#5 and #3) define a gas path, and a carbon dioxide detector (#9) is located within the gas path.

As to claim 2, tube (#3) also constitutes an adapter which is attached to a tracheal tube in operation.

As to claims 3, 4 and 6, the detector (#9) of Fehder comprises a backing and support material and an indicator material which is a pH sensitive dye (column 3, lines 4-29 and column 6, lines 40-48).

As to claims 12 and 13, the detector of Fehder changes from one color to another in the presence of carbon dioxide and back to the one color in the absence of carbon dioxide (column 8, lines 44-47).

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Claims 11, 14, 20, 21, 24-27, 34, 39-41 and 43 are substantially equivalent in scope to claims 1-4, 6, 12 and 13 and as such are also anticipated by Fehder as discussed above.

The following is a quotation of 35 U.S.C. 103 which forms the basis for all obviousness rejections set forth in this Office action:

A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Subject matter developed by another person, which qualifies as prior art only under subsection (f) and (g) of section 102 of this title, shall not preclude patentability under this section where the subject matter and the claimed invention were, at the time the invention was made, owned by the same person or subject to an obligation of assignment to the same person.

Claims 5, 9, 10, 16-18, 22, 23, 29, 30, 32, 33, 35-38, 42, 46 and 47 are rejected under 35 U.S.C. 103 as being unpatentable over Fehder.

As to claim 5, inasmuch as the support material of Fehder is a filter paper, and since paper is made of cellulose pulp, it would have been obvious that the support material (filter paper) of Fehder consists of cellulose.

As to claims 9 and 10, the detector of Fehder comprises a layer of material which includes sodium carbonate that is ~~substantially~~ capable of absorbing carbon dioxide (column 8, lines 34-36) since carbon dioxide

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must be absorbed in order to cause a color change in the pH sensitive dye.

As to claim 16, inasmuch as the support material of Fehder is a filter paper, and since paper in general is a porous material, it would have been obvious that the support material of Fehder is porous.

As to claim 17, applicant is referred to the comments above with respect to claim 5.

As to claim 18, inasmuch as the indicating element (#9) of Fehder contains amine residues (column 4, lines 23-41) which form a coating on the support material, it would have been obvious that the support material is aminopropyl controlled. Further, inasmuch as Fehder discloses that the support material can be a fibrous synthetic material, it would have been obvious to employ any one of a variety of fibrous synthetic materials, including glass.

As to claims 22 and 23, applicant is referred to the comments above with respect to claims 9 and 10.

The balance of the claims 29, 30, 32, 33, 35-38, 42, 46 and 47 are substantially equivalent in scope to claims 5, 9, 10, 16-18, 22 and 23 and are included in Fehder.

Claims 7, 8, 15, 19, 28, 31, 44 and 45 are rejected under 35 U.S.C. 103 as being unpatentable over Fehder as applied to claims 5, 9, 10, 16-18, 22, 23, 29, 30, 32, 33, 35-38, 42, 46 and 47 above, and further in view of Gehring et al.

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The difference between Fehder and claim 7 is a phase transport enhancer.

Gehring et al. teach a phase transport enhancer (e.g. tetrabutylammonium bromide) for the purpose of catalyzing a chemical reaction.

Inasmuch as it is commonplace to employ catalysts in order to promote a more complete chemical reaction in a shorter amount of time and since it is important to quickly determine the proper placement of endotracheal tube of Fehder, it would have been obvious to modify Fehder to employ the phase transport enhancer of Gehring et al. to catalyze the chemical reaction between the indicator material of Fehder and exhaled carbon dioxide.

The balance of claims 8, 15, 19, 28, 31, 44 and 45 are included in Fehder as modified by Gehring et al.

Claims 39-47 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 39-47 appear to be method claims but do not recite steps for determining the proper placement of an endotracheal tube.

Claim 23 is rejected under 35 U.S.C. 112, fourth paragraph, as being of improper dependent form for failing to further limit the subject matter of a previous claim.

Claim 23 recites "the intubation apparatus of claim 23..." which clearly does not further limit claim 23. Furthermore, it is not clear from what claim applicant intends claim 23 to depend.

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The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

The balance of the art is cited to show a relevant carbon dioxide detection apparatus.

This is a continuation of applicant's earlier application S.N. 161,046. All rejected claims are drawn to the same invention claimed in the earlier application and could have been finally rejected on the grounds or art of record in the next Office action if they had been entered in the earlier application. Accordingly, **THIS ACTION IS MADE FINAL** even though it is a first action in this case. See MPEP 706.07(b).

Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a). The practice of automatically extending the shortened statutory period an additional month upon the filing of a timely first response to a final rejection has been discontinued by the Office. See 1021 TMOG 35.

A SHORTENED STATUTORY PERIOD FOR RESPONSE TO THIS FINAL ACTION IS SET TO EXPIRE THREE MONTHS FROM THE DATE OF THIS ACTION. IN THE EVENT A FIRST RESPONSE IS FILED WITHIN TWO MONTHS OF THE MAILING DATE OF THIS FINAL ACTION AND THE ADVISORY ACTION IS NOT MAILED UNTIL AFTER THE END OF THE THREE-MONTH SHORTENED STATUTORY PERIOD, THEN THE SHORTENED STATUTORY PERIOD WILL EXPIRE ON THE DATE THE ADVISORY ACTION IS MAILED, AND ANY EXTENSION FEE PURSUANT TO 37 CFR 1.136(a) WILL BE CALCULATED FROM THE MAILING DATE OF THE ADVISORY ACTION. IN NO EVENT WILL THE STATUTORY PERIOD FOR RESPONSE EXPIRE LATER THAN SIX MONTHS FROM THE DATE OF THIS FINAL ACTION.

Any inquiry concerning this communication should be directed to Aaron J. Lewis at telephone number 703-557-3125.

A.J.L.

A. Lewis:cm

4/11/89

Edgar S. Burr

EDGAR S. BURR
S.P.E.
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